

REMARKS

In response to the Office Action dated April 29, 2005, Applicants respectfully request reconsideration based on the above claim amendments and the following remarks. Claims 1, 4-5, 9-10, 12, and 18-21 have been amended, leaving Claims 1-24 for consideration upon entry of the present amendment.

Support for Amendments

Support for the amendments to Claims 1, 12, and 19-21 may be found, for example, in box 310 in FIG. 3 and the accompanying text in the specification.

Drawing Objections

The Examiner has stated that the drawings are objected to as failing to comply with 37 C.F.R. 1.84(p)(5) because they include the following reference characters not mentioned in the description: (fig. 2, #40) and (fig. 2, #42). Corrected drawing sheets in compliance with 37 C.F.R. 1.121(d) have been submitted herewith which delete the reference characters #40 and #42 from FIG. 2. In light of the corrected drawing sheets, Applicants request that the Examiner withdraw the drawing objections.

Specification Objections

The Examiner has objected to the disclosure because of informalities. In response to this objection, the Applicants have submitted a replacement paragraph for paragraph 26. In light of the replacement paragraph, Applicants request that the Examiner withdraw the specification objections.

Claim Objections

Claims 1, 4-5, 7-8, 11-12 and 19-21 were objected to because of informalities. Applicants have amended these claims to comply with the Examiner's suggestions. In light of the amendments to Claims 1, 4-5, 7-8, 11-12 and 19-21, Applicants request the that Examiner withdraw the claim objections.

Claim Rejections under 35 USC §112

Claims 9-10 and 18 were rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The element of Claim 9 objected to by the Examiner has been moved, by amendment, to Claim 1. The element now recites “substituting a previous reference correction value scaled by an x-ray tube current change for the reference correction value if the right and left sets of reference channels are blocked.” Applicants submit that the amendment to this element overcomes the 35 USC §112 second paragraph rejection and request the Examiner to withdraw the rejection. Similarly, the element of Claim 18 rejected to by the Examiner has been moved, by amendment, to Claim 12. For the same reasons described in reference to Claim 1, Applicants submit that the amendment to this element overcomes the 35 USC §112 second paragraph rejection and request the Examiner to withdraw the rejection.

With regard to Claim 10, Applicants have amended Claim 10 to recite “the right and left sets of reference channels are blocked if the ratio of the average actual flux to the predicted flux is less than a selected parameter.” Applicants submit that the amendment to Claim 10 overcomes the 35 USC §112 second paragraph rejection and request the Examiner to withdraw the rejection.

Claim Rejections under 35 USC §103(a)

Claims 1-24 were rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 5,761,257 to Toth et al. (“Toth”) in view of U.S. Patent No. 4,809,314 to Steele et al. (“Steele”) and U.S. Patent No. 5,430,785 to Pfoh et al. (“Pfoh”).

Regarding Claim 1, Applicants submit that none of Toth, Steele or Pfoh, alone or in combination teach or suggest “substituting a previous reference correction value scaled by an x-ray tube current change for the reference correction value if the right and left sets of reference channels are blocked” as recited in amended Claim 1.

Toth is directed to a method for detecting reference channel blockage. An expected reference signal, S_x is calculated by multiplying the supplied x-ray tube current (mAm) by a calibrated reference channel signal factor (nrm). The calibrated reference channel signal factor (nrm) is calculated so that nrm is equal to the actual reference channel signal generated by the reference channels (S_r) divided by the supplied x-ray tube current (mAm). The calibrated reference channel signal factor (nrm) is calibrated during air calibration of the CT system. (Toth,

col. 5, lines 10-30.) Toth teaches that when the reference channels are assumed to be blocked, that the expected reference signal S_x , is utilized to normalize the projection data. This is because the actual reference channel signal generated by the reference channels (S_r) is assumed to be incorrect (Toth, col. 5, lines 44-48.) This is not the same as “substituting a previous reference correction value scaled by an x-ray tube current change for the reference correction value if the right and left sets of reference channels are blocked” as recited in amended Claim 1. The expected reference signal, S_x , is not the same as “a previous reference correction value” as recited in Claim 1. The addition of Steele and/or Pfoh does not correct this deficiency. For at least this reason, Applicants submit that Toth in view of Steele and Pfoh does not teach nor suggest all of the elements of Claim 1. Applicants submit that Claim 1 is in condition for allowance.

Claims 2-11 depend from Claim 1 and are patentable for at least the reasons advanced above with respect to Claim 1. Amended Claims 12 and 19-21 contain elements that are similar to Claim 1 and are patentable for at least the reasons advanced above with respect to Claim 1. In addition, Claims 13-18 depend from Claim 12 and are patentable for at least the reasons advanced above with respect to Claim 12. Claims 22-24 depend from Claim 21 and are patentable for at least the reasons advanced above with respect to Claim 21.

Conclusion

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event that there are any additional fees with respect to this Amendment, Applicants' attorneys respectfully request that such fees be withdrawn from Deposit Account No. 07-0845 maintained by Applicants' attorneys.

Respectfully submitted,

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